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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/645,392 | 08/21/2003 | Gerald J. McCall II | ST102 P-301 | 8096 |
| 277 | 7590 | 05/10/2005 | EXAMINER | |
| PRICE HENEVELD COOPER DEWITT & LITTON, LLP 695 KENMOOR, S.E. P O BOX 2567 GRAND RAPIDS, MI 49501 | | | RAO, SHEELA S | |
| | | ART UNIT | | PAPER NUMBER |
| | | | | 2125 |

DATE MAILED: 05/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|------------------------------|-------------------------------|-------------------------|--|
| | 10/645,392 | MC CALL ET AL. | |
| | Examiner Sheela Rao | Art Unit 2125 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 21 August 2003.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-67 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-67 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. ____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

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Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____.

DETAILED ACTION

1. Claims 1-67 are presented for examination and are pending.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The dependency of claim 22 is not clear. As presented, instant claim 22 depends from claim 22. For purposes of compact prosecution, Examiner assumes that claim 22 is to be dependent upon claim 21. Appropriate correction is required.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 1, 2, 5-12, 15-20, 36, 37, 40, and 42-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1, 2, 5-12, 15-20, 36, 37, 40, and 42-46 feature limitations that are abstract and are not limited to a practical application or use of the abstract ideas. A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. In this case, no such concrete, tangible and useful result has been claimed. See MPEP 2106 (IV).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-67 are rejected under 35 U.S.C. 102(e) as being anticipated by Vinciarelli et al. (US Patent No. 6,847,853 B1).

Vinciarelli et al. (hereinafter "Vinciarelli") teaches of an automated custom power supply design system. The patented invention enables a user to design a power supply unit using computer integrated manufacturing facilities. In the disclosure, the prior art teaches the features of the instant invention as claimed.

As per instant claims 1 and 36, the designing of an assembly wherein at least two components engaged defines a contact area is taught at column 20, beginning at line 63. The system of Vinciarelli establishes a complement of modular power components to be realized in the power system device. The generation of a representation of the assembly is also done using the computer aided design facility wherein the configuration, shape and size of the mechanical package is determined, see col. 21: ll. 1-13. The step of assigning an identifier to each component or group of components of the assembly, which is also further limited by instant claims 10 and 11, is taught by the prior art reference at column 32, beginning at line 59. The patented disclosure explains the use of a "SMI" or system manufacturing interface (figure 6) that generates part numbers for all of the parts and stores this information so that the details may later be provided on a bill of materials. The limitation of assigning a manufacturing

methodology which is also claimed by instant claim 37, is taught at line 5 of column 33, wherein the SMI is further used to generate machining specifications from the mechanical layout information to fabricate the parts of the unit. Vinciarelli continues to explain the generation of assembly or manufacturing instructions for the manufacturing process as per the instant limitations of instant claims 1, 13, 16, 19, 31, and 36 at line 9 of column 33.

As per the features of instant claims 2, 37, 40 and 41, wherein the assignment of a manufacturing methodology for each identifier is claimed, the prior art teaches this aspect at line 12 of column 33 while explaining the fabrication process for the snake wiring with the use of the SMI generating specifications for fabricating a design. The use of a computer system to execute the claimed methods of manufacturing as per instant claims 3, 38, and 39, is shown in Figure 5 and further explained in column 2, beginning at line 58, where a computer is shown in the patented system. The limitation of instant claim 4 wherein a computer system directs a computer numerical controlled device is inherent to a CIM system as taught by Vinciarelli, as many numerically controlled/automated devices are integrated in the manufacturing system/facility. The limitation of using a computer system for designing that is remote from the manufacturing facility as per instant claims 5, 12, 22, and 42-46, is depicted in figure 5 of Vinciarelli's disclosure and further explained beginning at line 14 of column 21. Furthermore, the use of at least a drawing device, among other drafting means as per instant claim 12, is carried through by the use of drawing tools in the outlining process of the designing phase, see col. 26:ll.26-28.

Instant claims 6 and 7, which are directed to the shipping or delivery and cost, respectively, aspect of the assembled device. With regard to this aspect, Vinciarelli relies on the project information portion (see figure 8) of the design system. At this point the system collects data with regard to order, cost, and delivery. Upon receipt of the purchase order, the delivery and price are configured. The delivery data is then forwarded to the delivery system, which then schedules the delivery details. See column 32: ll. 8-51.

Instant claims 8 and 9 are directed to modifying manufacturing instructions based on modifications to the methodology and reporting of defects. The patented reference uses the SMI to generate the manufacturing specifications and test the assembly for making necessary adjustments as deemed necessary. See col. 32: ll. 54 et seq.

The use of a computer system to direct the machines being used to produce the assembly as claimed in claims 14 and 21, is inherent to a system as patented by Vinciarelli since the production of the device is undertaken by a computerized system. The computer system is used to control the assembly/production process.

With regard to claims 15, 17, and 18 wherein at least one result among an identified group to achieve the best results is claimed, the patented reference teaches the use of the SMI to optimize the production of the device by generating detailed manufacturing specifications, procedures, and assembly for all of the components necessary to assemble the device. Furthermore, the SMI provides assembly instructions for the workers performing manual assembly tasks. See col. 32: II. 59, et seq. and col. 33: II.53-55.

The use of plural devices to complete varied tasks as per instant claims 20 and 29 is taught by the CIM system of the patented reference as sequential processing using multiple machines or devices is inherent to such systems. Furthermore, the SMI of the Vinciarelli system provides a production scheduler which plans the component manufacturing for the device modules on either a module line or a system line. The scheduler is linked to the automated machining centers which are able to fabricate parts of the assembly. See figure 6, and col. 33: II. 53 to col. 34:II. 32, col. 34:II. 10-16 and 33-39.

The use of computers in a network environment for the design of the assembly and generation of instructions as well as having the two tasks carried through on computers located remote from one another as per instant claims 23-27 and 33-35 is taught throughout the patented disclosure with the use of a automated manufacturing system that uses CAD technology for computer aided design and the use of remote computers is detailed beginning at line 14 of column 21. The notification upon completion of tasks as per claims 28, 30, and 32 is taught at lines 42-45 and 52, wherein the data is returned to the system and stored in the database. Additionally, beginning at line 55 of column 34, assembly information generated by the SMI is taught as being displayed on a monitor or CRT by the CIM system for reference by the operator.

The limitations of instant claims 47-67 are rejected on the same basis as that stated heretofore. Claims 47-67 are directed to a computer system with a memory subsystem that stores code for the execution of the method as claimed by instant claims 1-36.

For the reasons stated above, the limitations of the claimed invention is taught by the prior arts of record; thereby, rendering the instant claims unpatentable.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bienias USPN 6,813,610 B1

Teaches a computerized system for custom design and manufacturing

Goss USPN 6,236,901 B1

Teaches a manufacturing system for build-to-order assembly of computers

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheela Rao whose telephone number is (571) 272-3751. The examiner can normally be reached Monday - Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard, can be reached on (571) 272-3749. The fax number for the organization where this application or any proceeding papers is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. It should be noted that status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should any questions arise regarding access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sheela S. Rao
GAU 2125